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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,547	10/24/2003	Yoshiyuki Sumitomo	103213-00060	7494

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EXAMINER

BRINSON, PATRICK F

ART UNIT	PAPER NUMBER
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3754

DATE MAILED: 02/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,547

Applicant(s)

SUMITOMO, YOSHIYUKI

Examiner

Patrick F. Brinson

Art Unit

3754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 7 is objected to because of the following informalities: Claim 7, line 3 recites “point each other”. It is suggested that this is amended to read, “point toward each other”. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,044,844 to **Kwok et al.**

The patent to **Kwok et al.** discloses a hose (18), figs. 4-6, of which a cross-sectional shape is seen in a plane perpendicular to an axial direction is rectangular and having linear projections (42, 44, 46) formed on the inner wall of the hose body along the axial direction, as recited in claim 1. The height of each projection is 50% or more of a distance from a part of the inner wall on which the linear projection is formed to a part of the inner wall opposite to the linear projection, as recited in claim 2. A cross-sectional shape of each linear

projection as seen in a plane perpendicular to an axial direction is trapezoidal, as recited in claim 4. Fig. 5 best discloses a gap between a top of the linear projection and a part of the inner wall opposite the linear projection is in a range from 5% to 30% of the distance from the part of the inner wall on which the linear projection is formed to the part opposite the projection, as recited in claims 5 and 6.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kwok et al.** in view of U.S. 4,867,485 to **Seckel**.

The patent to **Kwok et al.** does not disclose the linear projections having a flat surface at the top. The patent to **Seckel** discloses a kink impeding hose including projections (20) formed in a trapezoidal cross-section and including flat surfaces (24). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the projections of **Kwok et al.** to include flat surfaces on top, as suggested by **Seckel**, in order to provide an alternate design, wherein the

function of the projections in either reference is to prevent the hose from occluding, thus preventing fluid from traveling through the tube.

4. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kwok et al.** in view of U.S. 4,257,422 to **Duncan**.

The patent to **Kwok et al.** does not disclose the projections formed on opposite walls pointing towards each other. The patent to **Duncan** discloses a crush resistant fluid delivery hose having a substantially rectangular cross-section including projections (13 and 14) that are arranged such that their tops point toward each other. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the projections of **Kwok et al.** such that the tops of opposing projections face each other, as suggested by **Duncan**, wherein it is known in the art to provide opposing projections on opposite sides of the tube wall such that they meet when external force is applied in order to prevent blockage of the flow through channel. In regard to the limitations of claims 9 and 10, **Kwok et al** discloses, as discussed in preceding paragraph # 2, the projections being spaced 5 to 30% from the wall opposite to the projection. It also would be obvious that in combining the teaching of **Kwok et al.** with **Duncan**, that the projections would be spaced from each other to form a gap in the range 5 to 30% of the distance from the parts of the wall from which the projections are formed in order to reduce the

deformation of the hose when subjected to external forces. Regarding the limitation of claim 8, **Kwok et al.** discloses the sum of heights of the opposite linear projections as 50% or more than a distance between parts of the inner wall on which the projections are formed.

Response to Amendment

5. In response to Applicant's arguments and declaration, the rejection in view of **Chih** is withdrawn. Newly discovered reference to **Kwok et al.** discloses the recited subject matter of claim 1, as previously discussed.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patent to Erringer is pertinent to Applicant's invention in disclosing projections, the tops of which face each other and are flat.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Patrick F. Brinson** whose telephone number is (571) 272-4897. The examiner can normally be reached on M-F 7:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Y. Mar** can be reached on (571) 272-4906. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patrick F. Brinson
Primary Examiner
Art Unit 3754

P. F. Brinson
January 28, 2005